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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/992,285	11/19/2001	Ludwig Wieres	E-41409	7087

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EXAMINER

STRICKLAND, JONAS N

ART UNIT	PAPER NUMBER
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1754

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DATE MAILED: 08/23/2002

Please find below and/or attached an Office communication concerning this application or proceeding.

72-3

**Office Action Summary**

Application N .

09/992,285

Applicant(s)

WIERES, LUDWIG

Examiner

Jonas N Strickland

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1754

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 19 November 2001 .
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-20 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-20 is/are rejected.
- 7) ☒ Claim(s) 2,3,8 and 9 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 19 November 2001 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on \_\_\_\_\_ is: a) ☐ approved b) ☐ disapproved by the Examiner.  
If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

**Priority under 35 U.S.C. §§ 119 and 120**

- 13) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
a) ☒ All   b) ☐ Some \* c) ☐ None of:  
1. ☐ Certified copies of the priority documents have been received.  
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.  
3. ☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).  
\* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).  
a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

**Attachment(s)**

- 1) ☒ Notice of References Cited (PTO-892)                      4) ☐ Interview Summary (PTO-413) Paper No(s). \_\_\_\_\_
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)                      5) ☐ Notice of Informal Patent Application (PTO-152)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) 2 .                      6) ☐ Other: \_\_\_\_\_

## **DETAILED ACTION**

### ***Claim Objections***

1. Claims 2, 3, 8, and 9 are objected to because of the following informalities:  
Applicant recites "rare earths". It is suggested that Applicant recite -- a rare earth metal --, with respect to claims 2 and 8. Appropriate correction is required.

### ***Claim Rejections - 35 USC § 112***

2. The following is a quotation of the second paragraph of 35 U.S.C. 112:  
  
The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.
3. Claims 1, 4, 6, 10, 13, 16, and 19 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.
4. Claims 1 and 19 recite "having an aluminum content in percent by weight of between 6 and 12% multiplied by 0.02 mm divided by said thickness of said sheet-metal layers". This limitation is unclear, because it is not clear as to what is the actual weight percentage of the aluminum content in the sheet layers, rendering the claims indefinite.

### ***Claim Rejections - 35 USC § 103***

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

6. Claims 1-15, 19 and 20 are rejected under 35 U.S.C. 103(a) as being unpatentable over Sheller (US Patent 5,422,083) in view of Aggen et al. (US Patent 4,414,023).

Applicant claims a honeycomb catalyst carrier body for exhaust gas-cleaning systems of motorcycles, comprising: layered or wound sheet-metal layers at least partially structured to form passages through which exhaust gas can flow, said sheet-metal layers formed of a stainless steel, having a thickness of more than 0.08 mm and having an aluminum content in percent weight of between 6 and 12% multiplied by 0.02 mm divided by said thickness of said sheet-metal layers. Applicant continues to claim wherein the sheet-metal layers formed of a stainless steel contain 15-25% of chromium, 0.02 to 0.2% of rare earths, having between 1 and 4.5% of aluminum.

Sheller discloses metal monolith converter used in the exhaust lines of motorcycles, as well as the internal combustion engine of automobile vehicles (col. 1, lines 8-27). The metal layers are comprised of stainless steel, comprised of 16% chromium, 4.5% aluminum, and one or more of rare earth metals (col. 2, lines 47-67). The stainless steel has a thickness of 0.22 mm and has a passage of between 50 cpsi to 800 cpsi (col. 4, lines 36-51). However, Sheller does not disclose having an aluminum content in percent by weight of between 6 and 12%, as well as the weight percentage of the rare earth metal.

Aggen et al. teaches a hot workable stainless steel alloy, which consists of 8.0-25% of chromium, 3.0-8.0% by weight of aluminum, and up to 0.05% by weight of a rare earth metal, such as cerium, and lanthanum (col. 3, lines 14-30). Aggen et al. continues

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to teach wherein such an alloy is useful in catalytic systems and converters for automobiles (col. 18, lines 32-44).

Therefore, it would have been obvious to one of ordinary skill in the art, to modify the teachings of Sheller based on the teachings of Aggen et al. to have an aluminum content in percent by weight of between 6 and 12%, as well as the weight percentage of the rare earth metal, because Aggen et al. teaches a hot workable stainless steel alloy, which is useful in catalytic systems and converters for automobiles which consists of 8.0-25% of chromium, 3.0-8.0% by weight of aluminum, and up to 0.05% by weight of a rare earth metal, such as cerium, and lanthanum. Such modification would have been obvious to one of ordinary skill in the art, because one of ordinary skill in the art would expect a layer formed of stainless steel comprised of chromium, aluminum, and a rare earth metal, used in catalytic systems to be similarly useful and applicable to a carrier formed of stainless steel, comprised of chromium, aluminum, and rare earth metals as taught by Sheller.

7. Claims 16-18 are rejected under 35 U.S.C. 103(a) as being unpatentable over Sheller (US Patent 5,422,083) in view of Aggen et al. (US Patent 4,414,023) as applied to claims 1-15, 19, and 20 above, and further in view of Sato et al. (EP 0497992 A1).

Applicant claims with respect to claims 16-18, wherein the sheet metal layers are rolled and removed from a production process for producing hot-dip aluminized material before an aluminum content is raised.

The teachings of Sheller and Aggen et al. have been discussed with respect to claims 1-15, 19, and 20. Aggen et al. teaches rolling the sheet metal layers, but does

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not teach removing from a production process for producing hot-dip aluminized material before an alumina content is raised (col. 3, lines 35-43).

However, Sato et al. teaches a stainless steel roll for automobile exhaust gas purifying catalyst carrier, which is a cold-rolled rapidly solidified steel foil comprised of 1 to 20% by weight of Al, 5 to 30% by weight of Cr, as well as rare earth metals. Sato et al. continues to teach as the aluminum content is increased the rolling workability of stainless steel becomes much poorer, and the content of Al which will effectively improve the oxidation resistance must be limited (p. 2, lines 39-46).

Therefore, it would have been obvious to one of ordinary skill in the art to modify the teachings of Sheller in view of Aggen, based on the teachings of Sato et al., by removing an aluminized material after rolling, because Sato et al. teaches that it is beneficial to remove the aluminized material after rolling, so that the aluminum content would not rise and effect the oxidation resistance of the stainless steel. Such modification would have been obvious to one of ordinary skill in the art, because one of ordinary skill would expect a stainless steel foil for an automobile exhaust gas purifying catalyst comprised of aluminum, chromium, and a rare earth metal as taught by Sato et al to be similarly useful and applicable to the stainless steel layers used in catalytic systems of automobiles comprised of aluminum, chromium, and rare earth metals as taught by Sheller and Aggen et al.

### ***Conclusion***

8. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

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Whittenberger (US Patent 4,985,388)

Fujikura et al. (US Patent 5,302,355)

Koshiba et al. (US Patent 5,395,599)


9. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jonas N Strickland whose telephone number is 703-306-5692. The examiner can normally be reached on M-TH. 7:30-5:00, off 1st Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Stanley Silverman can be reached on 703-308-3837. The fax phone numbers for the organization where this application or proceeding is assigned are 703-872-9310 for regular communications and 703-872-9311 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-305-0661.



Jonas N. Strickland  
August 21, 2002



WAYNE A. LANGEL  
PRIMARY EXAMINER